ABSTRACT OF THE DISCLOSURE

Information to be stored is input to a plurality
of information carrier storage means that interact with each
other. A unit amount of information carriers is added to
a position selected from the information carrier storage
means, and nonlinear diffusion of information carriers is
executed from the selected information carrier storage means
to its neighboring information carrier storage means, and
at the same time, nonlinear dissipation is executed from
the information carrier storage means. At that time, the
dissipation amount is determined so that the amount adding
the difference between the amount of addition and the amount
of dissipation to the input representation does not exceed
a predetermined threshold value. When equilibrium is
confirmed as a result of judgement whether changes in amount
of information carriers of each information carrier storage
means has become small or not, the amount of information
carriers stored in the information carrier storage means
is output as a numerical value.